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MATA KULIAH : KOMPUTASI PARALEL DAN TERDISTRIBUSI

```c
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
#include <omp.h>

#define baris 100
#define kolom 100

int main() {
    int arr[baris][kolom];
    int jumlah[baris];

    // Set number of threads (between 2 and 5)
    (4);

    // Seed random number generator
    srand(time(NULL));

    #pragma omp parallel for
    for (int i = 0; i < baris; i++) {
        for (int j = 0; j < kolom; j++) {
            arr[i][j] = rand() % 1000; // Random integer between 0 and 999
        }
    }

    #pragma omp parallel for
    for (int i = 0; i < baris; i++) {
        jumlah[i] = 0;
        for (int j = 0; j < kolom; j++) {
            jumlah[i] += arr[i][j];
        }
    }

    printf("Jumlah per baris:\n");
    for (int i = 0; i < baris; i++) {
        printf("Baris %d: %d\n", i, jumlah[i]);
    }

    return 0;
}
```

```
jil@DESKTOP-0F2UHGS:/mnt/c/Users/Ajil/Documents/Komputasi-Paralel/Tugas$ mpicc Tugas1.c -o tugas1
jil@DESKTOP-0F2UHGS:/mnt/c/Users/Ajil/Documents/Komputasi-Paralel/Tugas$ mpirun tugas1
Jumlah per baris:
Baris 0: 50877
Baris 1: 48895
Baris 2: 47869
Baris 3: 49311
Baris 4: 51527
Baris 5: 49293
Baris 6: 48780
Baris 7: 50493
Baris 8: 49209
Baris 9: 50468
Baris 10: 48163
Baris 11: 52606
Baris 12: 45524
Baris 13: 51773
Baris 14: 53183
Baris 15: 55082
Baris 16: 49543
Baris 17: 51959
Baris 18: 43784
Baris 19: 47782
Baris 20: 45263
Baris 21: 52480
Baris 22: 52161
Baris 23: 48324
Baris 24: 45838
Baris 25: 50129
Baris 26: 49487
Baris 27: 47216
Baris 28: 49736
Baris 29: 53124
```

```
Baris 30: 45763       Baris 62: 52710
Baris 31: 48291       Baris 63: 50839
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Baris 34: 46337       Baris 66: 51709
Baris 35: 45649       Baris 67: 54586
Baris 36: 52753       Baris 68: 47093
Baris 37: 47898       Baris 69: 52699
Baris 38: 50581       Baris 70: 50214
Baris 39: 45537       Baris 71: 47964
Baris 40: 51896       Baris 72: 53343
Baris 41: 49514       Baris 73: 48344
Baris 42: 51562       Baris 74: 53796
Baris 43: 48955       Baris 75: 48917
Baris 44: 52671       Baris 76: 51360
Baris 45: 49629       Baris 77: 55630
Baris 46: 55030       Baris 78: 52942
Baris 47: 50188       Baris 79: 51038
Baris 48: 46674       Baris 80: 49257
Baris 49: 49971       Baris 81: 49769
Baris 50: 51349       Baris 82: 50835
Baris 51: 52101       Baris 83: 51462
Baris 52: 49317       Baris 84: 51568
Baris 53: 48417       Baris 85: 53984
Baris 54: 48385       Baris 86: 52623
Baris 55: 47513       Baris 87: 49690
Baris 56: 49731       Baris 88: 47490
Baris 57: 50673       Baris 89: 50756
Baris 58: 45280       Baris 90: 48454
Baris 59: 53890       Baris 91: 48374
Baris 60: 49476       Baris 92: 51574
Baris 61: 58093       Baris 93: 46891
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